

Plastic Component with a High Filling Grade

Patent Claims

1. Plastic component with a high filling grade (1, 2, 3, 4, 46) which is connected to a basic body (5, 6, 7, 8, 9, 10, 11, 47) characterized in that the plastic component (1, 2, 3, 4, 46) is not fixed directly to the basic body (5, 6, 7, 8, 9, 10, 11, 47) but via at least one intermediary (12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23) made of elastic material, with the intermediary (12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23) being embedded by a frictional and/or positive connection with at least one projection (24, 25, 26) in a groove (27) or opening (28, 29) of the plastic component (1, 2, 3, 4, 46).
2. Plastic component with a high filling grade (1, 4, 46) according to claim 1, characterized in that it is designed in ring shape or disk shape and the intermediary (12, 13, 14, 15, 16, 17, 18, 21, 22, 23) is at least partly placed at one of its fronts, with the projection (24, 26) reaching into a groove (27) or opening (28, 29) at this front.
3. Plastic component with a high filling grade (1; 2; 3; 4; 46) according to claim 1 ~~or 2~~ characterized in that the intermediary (12, 13, 14, 15, 16, 17, 18, 21, 22, 23) is designed in ring shape or disk shape and the basic body (5, 6, 7, 9, 47) is provided with a bush shaped part (30) for fixing to a shaft, and an outwardly extending flange part (31) to which the intermediary (12, 13, 14, 15, 16, 17, 18, 21, 22, 23) is fixed.
4. Plastic component with a high filling grade (1) according to claim 3, characterized in that the intermediary (12, 14, 23) is injection molded onto the flange part (31) of the basic body (5, 6, 7, 47), being held via butt straps (32) or openings (33) of the flange part (31), and the plastic

component with a high filling grade (1) being injection molded or pressed onto the intermediary (12, 14, 23).

5. Plastic component with a high filling grade (1) according to claim 3, characterized in that it is injection molded or pressed onto the intermediary (13, 22) and the intermediary (13, 22) is fixed to the flange part (31) of the basic body (7, 9) by means of a frictional or positive connection.
6. Plastic component with a high filling grade (1) according to claim 5, characterized in that the intermediary (13) is provided with projections reaching through openings (33) in the flange part (31) of the basic body (7), with the ends projecting out of the flange part (31) being reshaped to a rivet head (34) by means of ultrasonic or hot stamping.
7. Plastic component with a high filling grade (1) according to claim 5, characterized in that through openings in the flange part (31) the intermediary (22) is provided with encompassing projections (45) at the front pointing towards the flange part (31) thus forming a clip joint with the basic body (9).
8. Plastic component with a high filling grade (2, 3) according to claim 1 or 2, characterized in that the material of the intermediary (19, 20) is injection molded around it together with the basic body (7).
9. Plastic component with a high filling grade (4) according to claim 1 or 2, characterized in that the basic body (8) is provided with a bush shaped part (3) for fixing to a shaft and an outwardly extending flange part (31), and that several intermediaries (21) are provided which are distributed along the circumference of the flange part (31) forming a clip joint with the flange part (31) and onto which the plastic component (4) is injection molded or pressed.

a 10. Plastic component with a high filling grade (1) according to claim 1 or 2, characterized in that the basic body (8, 9, 10, 11) is designed in the shape of a cylindrical bush and the intermediary (15, 16, 17, 18) is provided with a bush shaped part (36) which is arranged radially to the basic body (8, 9, 10, 11), and an outwardly extending flange part (37) at its front onto which the plastic component (1) is fixed.

11. Plastic component with a high filling grade (1) according to claim 10, characterized in that the basic body (8, 9) is provided with radial openings (38) and the intermediary (15, 16) is injection molded to the basic body (8, 9), with the material of the intermediary (15, 16) reaching into the openings (38).

12. Plastic component with a high filling grade (1) according to claim 10, characterized in that the basic body (10, 11) is provided with a circular running groove (39) or slot at the side pointing towards the bush shaped part (36) of the intermediary (17, 18) and the intermediary (17, 18) is injection molded to the basic body (10, 11), with the material of the intermediary (17, 18) reaching into the groove (39) or slot.

a 13. Plastic component with a high filling grade (1, 2, 3, 4, 46) according to <sup>claim 1</sup> ~~one of the claims 1 through 12~~ characterized in that the basic body (5, 6, 7, 8, 9, 10, 11, 47) is made of metal.

a 14. Plastic component with a high filling grade according to <sup>claim 1</sup> ~~one of the claims 1 through 12~~ characterized in that the basic body is made of plastics.

a 15. Plastic component with a high filling grade (1, 2, 3, 4, 46) according to <sup>claim 1</sup> ~~one of the claims 1 through 14~~ characterized in that it is designed as a plastic bonded permanent magnet.